

CLAIMS:

1. A method for testing quality of semiconductor devices on a wafer, the method comprising the steps of:

- generating quality test-data for a limited number of semiconductor devices on the wafer,

5 - deciding based on the generated quality test-data whether other semiconductor devices on the wafer are to be tested, or not to be tested,

- based on the result of the deciding step, testing or not testing the other semiconductor devices on the wafer, and

10 - if some semiconductor devices have not been tested, selecting at least one non-tested semiconductor device on the wafer for further processing.

2. A method according to claim 1, wherein the deciding step is a step of automatically deciding based on a comparison of a yield calculated from the generated quality test-data, with a pre-set value.

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3. A method according to claim 1, wherein the limited number of semiconductor devices are located on the wafer as determined by a spatial pattern.

4. A method according to claim 3, wherein the pattern comprises a pattern
20 selected from one or more of a circular pattern, an X-cross pattern, a pattern in the form of a plus sign, a spiral pattern.

5. A method for testing quality of semiconductor devices on a plurality of wafers, the method comprising the steps of:

25 - generating quality test-data for a limited number of semiconductor devices on a number of wafers from the plurality of wafers,

- deciding, based on the generated quality test-data, for each of the tested wafers, whether other semiconductor devices on the tested wafers are to be tested, or not to be tested,

- based on the result of the deciding step, testing or not testing the other semiconductor devices on the tested wafers, and
- if some semiconductor devices have not been tested, selecting at least one non-tested semiconductor device on the wafer for further processing,

5 wherein the limited number of semiconductor devices on each of the wafers are located on the wafers as determined by a spatial pattern, the spatial pattern being such that, by shifting it between wafers, a substantially complete wafermap can be obtained.

6. A method according to claim 5, wherein the shifting of the spatial pattern
10 comprises a rotation of the spatial pattern.

7. A method for manufacturing a plurality of semiconductor devices on a wafer, one of the method steps comprising a step of quality testing according to any of the claims 1 or 5.

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8. A wafer prober for testing a plurality of semiconductor devices on a wafer, the wafer prober comprising:

- selecting means for selecting a limited number of the plurality of semiconductor devices on the wafer which will be tested,
- 20 - at least one probe for measuring whether a selected semiconductor device meets at least one pre-set quality specification, the at least one probe generating quality test results,
- deciding means for deciding, based on the quality test results, whether other semiconductor devices on the wafer are to be tested or not to be tested.

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9. A wafer prober according to claim 8, wherein the at least one pre-set specifications is a design and/or performance specification.

10. A wafer prober according to claim 8, furthermore comprising a memory
30 means for saving the generated test results.